

**JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION,
RANCHI**

**Draft Jharkhand State Electricity Regulatory Commission (Prepaid
Smart Metering) Regulations, 2024**

In exercise of powers conferred under Section 61,86 and section181 of the Electricity Act, 2003 and all other powers enabling it in that behalf, the Jharkhand State Electricity Regulatory Commission, hereby makes the following Regulations.

1. Short Title and Commencement

- 1.1.** These Regulations may be called the Jharkhand State Electricity Regulatory Commission (Prepaid Smart Metering) Regulations, 2024.
- 1.2.** These Regulations shall come into force from the date of their publication in the Jharkhand State Government Gazette.

2. Scope and Extent of Application

- 2.1.** These Regulations shall be applicable to all consumers and Distribution Licensees/Distribution Franchisees engaged in the business of distribution and supply of electricity in the State.
- 2.2.** These Regulations shall extend to the State of Jharkhand.

3. Definitions and Interpretation

- 3.1.** In this Regulation unless the context otherwise requires:
 - a) **‘Act’** means the Electricity Act, 2003 read in conjunction with its latest revisions;
 - b) **‘Consumer Security Deposit’** means deposit prescribed to cover the estimated power consumption charges for post-paid metering connection as defined in JSERC (Electricity Supply Code) Regulations,2015 and its amendments thereof.

- c) **‘Advance Metering Infrastructure (AMI)’** means an integrated system of smart meters, communication networks and data management systems that enables two-way communication between the utilities and energy meters, and the functional blocks of Advanced Metering Infrastructure, typically includes Head end system, Wide area network, Neighbourhood area network, Data concentrator unit and Home area network.
- d) **‘Agreement’** means a written agreement with specific terms entered into by the Distribution licensee and the consumer;
- e) **‘Area of supply’** means the area within which a licensee is authorized to supply electricity and shall include such areas where a franchisee(s) may be deployed.
- f) **‘Commission’** means the Jharkhand State Electricity Regulatory Commission.
- g) **‘Contract Demand’** means demand in Kilowatt (kW) or Kilo Volt amperes (kVA) as mutually agreed between the Distribution Licensee and the consumer and as entered into agreement or agreed through other written communication.
- h) **‘Consumption Charges’** means charges payable for the consumption of electrical energy in kWh/kVAh multiplied by appropriate tariff rates, along with Demand /Fixed charges, Fuel Surcharge Adjustment (FSA) and customer and other charges etc, wherever applicable.
- i) **‘Disconnection’** means the physical separation of user or consumer from the system.
- j) **‘Distribution Licensee’** means a licensee authorized to operate and maintain a distribution system for supplying electricity to the

consumers in his area of supply and includes his authorized representative.

- k) **‘Maximum demand’** means the highest load measured in average kVA or kW at the point of supply of a consumer during any consecutive period of 30 (thirty) minutes or as specified by the Commission, during the billing period;
- l) **‘Meter’** means an equipment used for measuring, indicating and recording electrical quantities like energy in kWh or kVAh, maximum demand in kW or kVA, reactive energy in kVAR hours etc. including accessories like Current Transformer (CT), Voltage Transformer (VT) / Potential Transformer (PT) / Capacitor Voltage Transformer (CVT) etc. where used in conjunction with such meter. It shall also include any seal or sealing arrangement and other measures provided by the Distribution Licensee for sealing, reliability and for preventing theft/unauthorised use of electricity;
- m) **‘Minimum Charge’** means charges as approved by the Commission in the prevailing tariff order for the Distribution Licensee;
- n) **‘Prepaid/Prepayment Meter’** means a smart meter conforming to relevant IS which facilitates use of electricity only after advance payment.
- o) **‘Sanctioned Load’** means the load in kW, kVA or BHP, which the Distribution Licensee has agreed to supply from time to time subject to the governing terms and conditions in the absence of an Agreement between the Distribution licensee and the consumer.
- p) **‘Smart meter’** means an ac static watt-hour meter with time of use registers, internal connect and disconnect switches with two-way communication capability. It is designed to measure the flow of

forward (import) or both forward (import) and reverse (export), store and communicate the same along with other parameters defined in relevant standard. It shall be remotely accessed for collecting data/events, programming for select parameters that is to be provided by the distribution utility for supplying electricity to a premises.

- q) **‘Tariff’** means a schedule of prices or charges including fixed charges and monthly minimum charges for supply of electrical energy and services as approved by the Commission, which are applicable to all such services provided to the consumers by the licensee.
- r) **‘User’** means any person having electrical interface with, or using the distribution system of the Distribution Licensee to whom these Regulations is applicable.

3.2. Words and expressions used in these Regulations and not defined herein but defined in the Act shall have the meanings respectively assigned to them in the Act.

3.3. All other words and expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by the Parliament/State Legislation applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

4. Applicability

4.1. These Regulations shall be applicable to all categories of consumers (new and existing consumers).

4.2. The distribution licensee, upon receiving an application from a consumer falling under the category mentioned in clause 4.1, is obligated to facilitate electricity supply through a prepaid smart meter. However, the feasibility of installing such a meter in the designated area must be assessed. This process should align with the stipulations

outlined in the Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2015, and other relevant regulations as amended from time to time.

- 4.3.** In case the existing consumer opts for prepaid connection and the meter under post-paid arrangement is owned by the consumer, the licensee shall replace the existing meter with a new meter (with prepayment facility) at its own cost & shall not return the old meter to the consumer and dispose it off in a manner so as to avoid its misuse. However, for new connection on prepaid mode, the cost of meter shall be borne by the consumer. (exceptions may be provided as per National or State level schemes).
- 4.4.** The provisions of Section 56 of the Act which apply to supply of electricity through post-payment mechanism shall not be applicable to supply through prepaid smart meters.
- 4.5.** For smart meters, the meters shall be read remotely at least once in every month. The data regarding energy consumption shall be made available to the consumer, through various online services i.e. website or mobile App or SMS, etc

5. Migration to Prepaid Smart Meter and New Connection

- 5.1.** Migration from post-paid to prepaid and new connection on prepaid shall be as per the Standard Operating Procedure (SOP) decided by the licensee and the methodology adopted in JSERC (Electricity Supply Code) Regulations, 2015 and its subsequent amendments.

6. Rebate for prepaid smart meter

- 6.1.** Rebate, if applicable, for consumers utilizing electricity through prepaid smart meters will be in accordance with the provisions outlined in the latest Tariff Order approved by the Commission from time to time.

7. Consumer Security Deposit

- 7.1.** In case of new connection with prepaid smart meter, the distribution licensee shall not require any security, in pursuance of clause (a) of sub section (1) and sub section (5) of Section 47 of the Electricity Act, 2003. The consumer shall not be required to deposit any advance consumption deposit as part of security.
- 7.2.** Provided further that for existing consumer (post-paid connection) shifting to smart prepaid metering arrangement, the advance consumption deposit which has been deposited with the licensee shall be adjusted against the last bill including arrears if any and the balance if any payable to/by the consumer shall be adjusted as per the arrear adjustment methodology already in force.

8. Metering:

- 8.1.** The distribution licensee is responsible for ensuring the availability of prepaid smart meters for new connections and replacing defective meters in areas where prepaid smart metering is implemented. Additionally, the licensee must ensure that the prepaid smart meters are tested and certified according to the relevant Indian Standard, subject to amendments over time.
- 8.2.** The licensee/consumers are required to install prepaid smart meters that adhere to the technical specifications outlined in the relevant standards/regulations and guidelines of the Central Electricity Authority (CEA), subject to amendments. The Commission-determined applicable charges will be deducted on a daily basis from the consumer's recharge amount. In instances where smart prepaid meters faces communication issues, the daily energy charge will be calculated based on the estimated daily consumption derived from the average of the last seven days' recorded consumption. The prepaid balance will be promptly updated upon retrieving actual consumption readings from the prepaid smart meter.

- 8.3.** The prepaid smart metering system should incorporate features allowing consumers to recharge their account credits through various online recharge modes provided by the distribution licensee in real-time. The prepaid smart metering system shall also send notification/alert to the consumer on registered mobile phone in case of minimum/low credit (negative balance).
- 8.4.** The meter shall be communicative and compatible with AMI applications. Provided further that the meter shall have adequate number of registers and the facility for Time of Day (TOD) and kVAh based tariff application.
- 8.5.** Consumers can recharge their prepaid smart meter account as needed, with the recharge amount available in multiples of Rs. 200/-.The distribution companies (DISCOMs) will offer various multi-recharge facilities/options to facilitate this process. Notably, there is no maximum limit imposed on the recharge amount, allowing consumers to top up their prepaid smart meter accounts based on their individual requirements.
- 8.6.** The Consumer should maintain minimum balance to be decided prudently by the licensee for different category of consumers on the basis of connected load. Pre-Paid balance will be updated against daily midnight consumption recorded on 00:00 hours; as and when the consumer's account balance goes low, the recharge/alert notification to the consumers shall be initiated at least at 3 stages of low balance. In case, the consumer fails to recharge his prepaid meter account and his balance runs out, the meter shall cut off the supply of the consumer.
- 8.7.** The AMI application should initiate auto reconnection after successful recharge of the meter so that the connection is restored immediately (applicable only during the period of temporary disconnection).

Explanation: The Consumer shall be notified at least at three stages of low balance in descending intervals of 5% starting from 20% of minimum charges.

8.8. The prepaid billing system by the licensee shall have the provision for ensuring recovery of monthly minimum charges/fixed charges/consumption charges or any other charge, if applicable, as per the applicable tariff schedule and balance shall be updated on the date of monthly billing (date as decided by the licensee). The software solution of the licensee shall be capable of implementing the tariff as per tariff order approved by the Commission from time to time. The Software solution of the licensee must also have provision to record total duration of supply including duration of interruption of supply during the day.

8.9. Smart meter temporary disconnection process:

- a) The energy and fixed charge/monthly minimum charge calculation of consumers shall take place on a daily basis on the applicable tariff of that particular consumer.
- b) In case, the consumer fails to recharge his/her prepaid meter account and his balance runs out to zero, the meter shall disconnect the supply of the consumer.
- c) Disconnection process shall be scheduled only between 6 AM to 6 PM of any particular day. However, disconnection shall not be initiated on Sunday and Gazetted Holidays to avoid discomfort to consumer till such time the reconnection on real time basis is implemented by the licensee.
- d) Disconnection on low balance shall be deemed to be temporary disconnection.
- e) Post disconnection, consumers shall be notified through SMS about the same along with the details of zero/negative balance amount.
- f) In case of temporary disconnection, the consumer can recharge the meter and restore the electricity supply without any additional cost or penalty.

- 8.10.** The Consumers can recharge his/her prepaid meter account online through mobile application, web application or digital payment systems such as e-wallet, UPI, web portal etc. facilities to be provided by the licensee. Apart from this the Licensee should also have provisions for meter recharge at designated customer billing/helpdesk centres.
- 8.11.** AMI application should initiate auto reconnection after successful recharge of the meter.

9. Consumer data protection and Security:

- 9.1.** Consumer Data Protection as per CEA guidelines, Information Technology Act 2000 or any other GoI guidelines/regulation in force should be incorporated and ensured from time to time by the licensee.

10. Arrear adjustment methodology

- 10.1.** The arrears, if any, shall be first adjusted against the Consumer Security Deposit lying with the licensee.
- 10.2.** The consumer can only be allowed to shift to prepaid mode from post-paid mode if all arrears are paid or adjusted from consumer security deposit. There should not be any previous arrears before switching to prepaid mode.
- 10.3.** For prepaid consumer, in case of any revision in consumer account due to any demand(arrear) /refund discovered at later stage including by Audit or else, the revised billing account notice is to be sent to consumer on mobile app/SMS/email etc. in advance at least 15 days prior to its actual implementation date in prepaid billing system by the licensee. After 15 days of notice, the amount of arrears or refund (if any) payable by/to consumer shall be adjusted to pre-paid balance of consumer in following manner:
- i. Complete Refund amount be added in pre-paid balance.
 - ii. Arrears should be added in pre-paid balance as per the prevailing arrear adjustment methodology. Provided that

licensee is required to complete the exercise of audit of relevant consumer's account within 6 months from the date of consumer switching over from post-paid to prepaid facility.

11. Physical Disconnection

- 11.1.** In case, the consumer does not recharge his/her account after temporary disconnection as elaborated in clause 8.8, the account may reach negative balance on account of applicability of Monthly Minimum Charges or any other similar charge as decided by the Commission, even if there is no electricity consumption by the consumer.
- 11.2.** The notification/ alert shall be considered as notice for recharging the account & licensee may disconnect the supply on failure to recharge the account by consumer without any further notice.
- 11.3.** The temporary disconnection can be restored within 6 months only after recharging with an amount sufficient to recover the monthly minimum charges/fixed charges or any other charges decided by the Commission even if there is no consumption by the consumer during temporary disconnection.
- 11.4.** The connection shall be disconnected permanently, and the meter shall be physically removed from the consumer premises if the consumer fails to recharge the account within six months of temporary disconnection.
- 11.5.** After permanent disconnection, fresh connection to such consumer shall be as per the Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2015 and amendments thereof.

12. Replacement of meters

- 12.1.** If the prepaid smart meter installed by the licensee is damaged due to overloading or any other reason attributable to the consumer, then the consumer is responsible for the replacement costs. In such instances, the consumer shall bear the financial responsibility for the restoration or replacement of the meter.
- 12.2.** If damage occurs to the meter for reasons other than those specified in Clause 12.1, the resolution will be in accordance with the relevant

provisions outlined in the Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2015, and any subsequent amendments.

13. Other Provisions

- 13.1.** Any matter related to the distribution of electricity involving distribution licensees and consumers not explicitly addressed in this regulation shall be handled in accordance with the JSERC (Electricity Supply Code) Regulations, 2015, and any subsequent amendments thereof along with JSERC (Distribution Licensees Standard of Performance) Regulations, 2015 and its amendments.

14. Testing

- 14.1.** Consumers shall have the option to procure their own meter, meeting approved specifications, from vendor(s) endorsed by the licensee. Upon purchasing such meter, the consumer must ensure its testing at meter testing labs approved by the Commission, following the payment of the necessary fee as per the prevailing regulations. The licensee shall commit to conduct the meter testing within seven days and subsequently installing the meter outside the consumer's premises. This provision offers consumers the flexibility to acquire and install their meters while adhering to the specified procedures.
- 14.2.** The distribution licensee shall ensure that tested and sealed meters of approved meter manufacturers are available to consumers for purchase, and information of the places from where the consumers can purchase them is made available on its website.
- 14.3.** The licensee must also randomly test sample (minimum 5%) of meters received from its authorized vendors to ensure they meet required specifications. The reports must be submitted to the Commission during filing of Tariff Petition.
- 14.4.** In case of complain from consumer, testing of meters shall be done by the distribution licensee within a period as may be specified by the

Commission, not exceeding thirty days, of receipt of the complaint from the consumer about their meter readings not being commensurate with his consumption of electricity, stoppage of meter, damage to the seal, burning or damage of the meter, etc.

- 14.5.** No test fee shall be charged from the consumer at the time of reporting however if the meter is found to be defective or burnt due to reasons attributable to the consumer, the consumer shall bear the cost of new meter and test fee as approved by the Commission shall be charged from the consumer through subsequent bills.
- 14.6.** The list of third party agencies approved by the Commission shall be available in their various offices as well as on the website of the distribution licensee.
- 14.7.** The Licensee is expected to keep sufficient stock of tested meters to ensure prompt replacement for defective meters, ensuring an immediate response without causing inconvenience to the consumer. Additionally, the availability of these spare meters aims to meet the demand for new connections, facilitating a smooth and efficient process for consumers and the distribution system.
- 14.8.** Non-availability of meter shall not be a reason for delay in restoration of supply.

15. Training

- 15.1.** The meter vendor or the entity responsible for installing the prepaid smart meters in the State is obligated to offer sufficient training to the staff of the licensee. This training is essential to ensure a smooth and proper implementation of the prepaid metering scheme. Furthermore, it is specified that the server for the proposed metering system and software should be maintained and operated either by the licensee or its authorized vendor. This provision aims to eliminate potential issues at a later stage and guarantees the seamless functioning of the metering system.

16. Inherent Powers of the Commission

16.1. Nothing in these Regulations shall be deemed to limit or otherwise affect the power of the Commission to make such orders as may be necessary to meet the ends of justice.

16.2. Nothing in these Regulations shall bar the Commission from adopting in conformity with provisions of the Act, a procedure which is at variance with any of the provisions of these Regulations, if the Commission, in view of the special circumstances of a matter or a class of matters, deems it just or expedient for deciding such matter or class of matters.

16.3. Nothing in these Regulations shall, expressly or implied, bar the Commission from dealing with any matter or exercising any power under the Act for which no Regulations have been framed, and the Commission may deal with such matters, powers, and functions in a manner, as it considers just and appropriate.

17. Interpretation

The decision of the Commission regarding the interpretation of these Regulations shall be final and binding.

18. Power to amend

The Commission may from time to time add, vary, alter, modify or amend any provisions of these Regulations after following the necessary procedures.

19. Power to remove difficulties

If any difficulty arises in giving effect to any of the provisions of these Regulations, the Commission may, by a general or special order, not being inconsistent with the provisions of these Regulations or the Act, do or undertake to do things or direct to do or undertake such things which appear to be necessary or expedient for the purpose of removing the difficulties.

20. Power to relax

The Commission may by general or specific order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to

be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by the affected party.